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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/719,907	08/14/2001	Dominique Certon	6680-6	7058

7590

12/18/2002

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EXAMINER

DICKENS, CHARLENE

ART UNIT	PAPER NUMBER
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2855

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/19, 907

Applicant(s)

Certon et al.

Examiner

Dickens

Group Art Unit

2855

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE -3- MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☒ Responsive to communication(s) filed on 9-16-02
- ☐ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-8, 13-24 is/are pending in the application.
- ☐ Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-8, 13-24 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☒ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved. CD 12/13/02
- ☒ The drawing(s) filed on 8/14/02 is/are objected to by the Examiner.
- ☒ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☒ All ☐ Some* ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____.
- ☒ Copies of the certified copies of the priority documents have been received

In this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.
2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
4. The disclosure is objected to because of the following informality on page 2, line 7, "2" should --3--. Appropriate correction is required.
5. Claims 6-8 and 15-24 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The original specification does not describe in detail what is meant by measuring ultrasound propagation time outside the fluid vein.
6. Claims 6-8 and 15-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly

point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what is a "fluid vein". Where is the vein located and how the vein is interrelated to the other recited elements? Clarification needed.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1, 2, 6 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akiyama. As best understood, Akiyama teaches a method for measuring the displacement of a fluid characterised by the steps: of simultaneously exciting the two transducers using a single circuit (col. 2, lines 37, 38), then simultaneously measuring signals received at each one of the transducers originating from the other transducer (col. 2, lines 54, 55) and a calibration step by measuring ultrasound propagation time outside the fluid vein (Fig. 1). However, Akiyama does not teach in Fig. 1 a step of synchronously digitizing the signals received at each one of the transducer. This limitation serves the purposes of introducing digital electronic which would then limit the cost of the system.

Nevertheless, Akiyama teaches a step of synchronously digitizing the signals received at each one of the transducer (col. 4, lines 3-5 and 61-68) for the purpose of providing a flowmeter which is of a simple circuit arrangement, which can be manufactured at low cost, and which has a measuring accuracy that will be maintained for an extended period of time. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a step of synchronously digitizing the signals received at each one of the transducer in Akiyama for the purpose of providing a flowmeter which is of a simple circuit arrangement, which can be manufactured at low cost, and which has a measuring accuracy that will be maintained for an extended period of time.

9. Claims 3-5, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Akiyama, as applied to claims 1 and 2 above, and further in view of Kažya et al. Claims differ from the modified Akiyama with the recitations of: intercorrelating signals received, calculating the Hilbert transform of intercorrelation and seeking zeros of the Hilbert transform. Kažya et al. discloses calculation of the difference in transit times comprises intercorrelating signals received, calculating the Hilbert transform of intercorrelation and seeking zeros of the Hilbert transform (Fig. 4, col. 3. lines 22-28) for the purpose of providing a system for continuous measurement of

ultrasonic waves in a moving medium. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have included in the modified Akiyama calculation of the difference in transit times comprises intercorrelating signals received, calculating the Hilbert transform of intercorrelation and seeking zeros of the Hilbert transform as taught by Kažya et al. for the purpose of providing a system for continuous measurement of ultrasonic waves in a moving medium.

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over modified Akiyama, as applied to claims 1 and 6 above, and further in view of Hill et al. Claim differs from the modified Akiyama with the recitation of two fluids of different and known velocities. Hill et al. discloses a flow analysis system using fluids of different and known velocities (col. 1, lines 15-27) for the purpose of providing a non-intrusive flow analysis system and a method which provides provides reliable measurement of both liquid and two phase flows. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have included in the modified Akiyama a flow analysis system using fluids of different and known velocities as taught by Hill et al. for the purpose of providing a non-intrusive flow analysis system and a method which provides provides reliable measurement of both liquid and two phase flows.

11. Claims 8, 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified Akiyama, as applied to claims 1-6 above, and further in view of Conant et al. Claims differ from the modified Akiyama with the recitation of propagation time as a function of temperature. Conant et al. discloses adjusting, i.e., correcting, values of ultrasound propagation time as a function of temperature (col. 8, lines 4-12) for the purpose of providing a reliable ultrasound flowmeter that is not sensitive to temperature and is not susceptible to corrosion. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have included in the modified Akiyama correcting values of ultrasound propagation time as a function of temperature as taught by Conant et al. for the purpose of providing a reliable ultrasound flowmeter that is not sensitive to temperature and is not susceptible to corrosion.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Dickens whose telephone number is (703) 305-7047.



cd/dickens
December 13, 2002



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